

## NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION

### Notice of Public Hearing and Opportunity to Comment on Proposed Rules

**What are we proposing?** The Department of Environmental Protection is proposing to amend its Rules Governing and Restricting the Use and Supply of Water to reflect changes in technology and practice related to the installation, repair, and maintenance of water services and service connections, and to the selection, sizing, and use of water meters.

**When and where is the Hearing?** The Department will hold a public hearing on the proposed rule. The public hearing will take place at 10 a.m. on December 23, 2013. The hearing will be in the conference room at 59-17 Junction Boulevard, Flushing, New York, on the 6<sup>th</sup> Floor.

**How do I comment on the proposed rules?** Anyone can comment on the proposed rules by:

- **Website.** You can submit comments to the Department through the NYC rules Website at <http://rules.cityofnewyork.us>.
- **Email.** You can email written comments to [nycrules@dep.nyc.gov](mailto:nycrules@dep.nyc.gov).
- **Mail.** You can mail written comments to the Department of Environmental Protection, Bureau of Legal Affairs, 59-17 Junction Boulevard, 19<sup>th</sup> Floor, Flushing, NY 11373.
- **Fax.** You can fax written comments to the Department of Environmental Protection, Bureau of Legal Affairs, at 718-595-6543.
- **By Speaking at the Hearing.** Anyone who wants to comment on the proposed rule at the public hearing must sign up to speak. You can sign up before the hearing by calling Julia Bourdier at 718-595-6555. You can also sign up in the hearing room before the hearing begins on December 23, 2013. You can speak for up to three minutes.

**Is there a deadline to submit written comments?** Yes, you must submit written comments by December 23, 2013.

**Do you need assistance to participate in the Hearing?** You must tell the Bureau of Legal Affairs if you need a reasonable accommodation of a disability at the Hearing. You must tell us if you need a sign language interpreter. You can tell us by mail at the address given above. You may also tell us by telephone at 718-595-6555. You must tell us by Monday, December 16, 2013.

**Can I review the comments made on the proposed rules?** You can review the comments made online on the proposed rules by going to the website at <http://rules.cityofnewyork.us/>. A few days after the hearing, a transcript of the hearing and copies of the written comments will be available to the public at the Bureau of Legal Affairs.

**What authorizes the Department to make this rule?** Section 1403(a)(1)(c) of the Charter of the City of New York and sections 24-308, 24-309, 24-310, 24-332, 24-334, 24-337, 24-342, and 24-346 of the Administrative Code of the City of New York authorize the Department to make this proposed rule. This proposed rule was included in the Department’s regulatory agenda for this Fiscal Year.

**Where can I find the Department’s rules?** The Department’s rules are in Title 15 of the Rules of the City of New York.

**What rules govern the rulemaking process?** The Department must meet the requirements of Section 1043 of the Charter when creating or changing rules. This notice is made according to the requirements of Section 1043(b) of the City Charter.

### **Statement of Basis and Purpose**

The New York City Department of Environmental Protection (“DEP” or “Department”) proposes to amend the rules “Governing and Restricting the Use and Supply of Water” (15 RCNY §20-01 *et seq.*), to reflect changes in technology and practice related to the installation, repair, and maintenance of water services and service connections, and to the selection, sizing, and use of water meters. The proposed amendments also update rules for outdoor and indoor water use, and modernize the process for issuing permits to companies performing water meter testing or repairs.

These changes reflect Department efforts to reduce system leakage, incorporate the use of new technologies and products, update policies concerning outdoor water use, and eliminate outdated rules and specifications. The amendments were developed partly in response to recommendations from oversight agencies, trade and professional organizations, and members of the public at large.

Subdivision (a) of Section 20-01 is amended to require a permit for water meter accuracy testing and repair prior to commencement of such testing and repair, and a permit for companies to perform water meter accuracy tests.

Subdivision (a) of Section 20-02 is amended to clarify that one tax lot cannot supply water to another tax lot.

Subdivision (b) of Section 20-03 is amended to specify requirements for approving new internal water mains, and to require that a property with an internal water main have a water meter and backflow prevention device placed at or near the property line.

Subdivisions (e), (g), and (h) of Section 20-04 are amended, and subdivision (i) is repealed, to reference technical standards for backflow prevention designs, revise testing requirements for backflow prevention devices, match requirements for water hammer arresters and suction tanks with the New York City Plumbing Code, and eliminate the use of separation or section valves.

Subdivisions (a), (b), (d), (e), (i), (k), (l), and (r) of Section 20-05 are amended to clarify metering requirements, standards and permits for companies performing meter tests, and proper applications for certain meter technologies; update minimum meter equipment specifications and individual metering requirements for condominiums; and specify locations for Automatic Meter Reading equipment.

Subdivision (a) of Section 20-06 is amended to reflect recently enacted changes to the Plumbing Code (Local Law 54 of 2010) that ban the use of once-through water cooled equipment for all purposes except for ice makers producing no more than 500 pounds of ice per day.

Subdivision (a) of Section 20-08 is amended to specify performance standards for equipment used for sidewalk washing, and to eliminate the existing requirement that prohibits serving water in a restaurant unless a patron asks for it. This requirement remains in Chapter 21 of the Rules, the Drought Emergency Rules.

Section 20-10, the Glossary, is amended by adding six new definitions and revising two definitions.

Finally, Figures 7, 7A, 7B, 8, 9, 9A, 10, 10A, and 11 through 17 are updated. New Figures 16A, 16B, 16C, 18, 19, 20, and 21 are added to clarify requirements for outdoor meter pit installations and meters installed in or adjacent to indoor pits.

Material being deleted is shown below in [brackets] and material being added is underlined.

**Chapter 20 of Title 15 of the Rules of the City of New York is amended to read as follows:**

§1. Subdivision (a) of Section 20-01 of Title 15 of the Rules of the City of New York is amended to read as follows:

(a) *General information.* Subject to the provisions of this chapter, permits will be issued for the following purposes upon receipt of proper applications and permit [fee] fees:

Hydrant, Use of  
Meter Accuracy Test  
Meter Disconnect for Repair or Change of Piping (“Break Seal”)  
Meter Setting, New, Replacement or Additional  
Meter Testing and Repair Company  
Plug, Tap/Wet Connection (Termination of Service)  
Service Pipe, Relay of  
Service Pipe, Repair of  
Service Pipe, Thawing of  
Tap Installation  
Tap Installation and Plug of Prior Tap  
Tap Location, Electrical Indicator  
Wet Connection Installation  
Wet Connection Installation and Plug of Prior Tap or Wet  
Connection

§2. Subdivision (a) of Section 20-02 of Title 15 of the Rules of the City of New York is amended to read as follows:

(a) Separate supply. A separate corporation stop (tap) and service pipe shall be installed for each building supplied with City water, except for buildings that have service pipes supplied by internal water mains as described in §20-03 (b). One tax lot cannot be supplied with water from another tax lot.

§3. Paragraphs 1 and 2 of subdivision (b) of Section 20-03 of Title 15 of the Rules of the City of New York are amended, and a new Paragraph 3 is added, to read as follows:

- 1) [Advance] Design stage approval for internal water mains shall be obtained from both the Department and the Department of Buildings. Approval for a meter shall be obtained from the Department's Bureau of Customer Services and for RPZ settings from the Department's Bureau of Water and Sewer Operations (Cross Connection Control Unit). Requests for approval shall be made by a New York State-Licensed Professional Engineer or Registered Architect.
- 2) Internal water mains shall have [either an approved valve and valve box or], in addition to any meters required by §20-05 (a), an approved meter and backflow prevention device in a meter [pit] vault or above-ground enclosure ("hot box") installed [in] inside the property within two (2) feet of the property line [in addition to meters required by 20-05 (a)]. After installation, such meters at the property line will be owned, maintained, repaired and read by the Department. If a private street in a development remains privately owned, then the meter at the property line shall be used for billing and any individual meters in the development shall be deemed the owner's submeters. If the City assumes possession of a private street in a development, then the meter at the property line shall be used solely

for monitoring purposes and any individual meters in the development shall be used for billing.

(3) Design stage approval to install and repair internal water mains will be issued under the following conditions:

- i) Owners of the internal water mains shall be responsible for their maintenance and repair.
- ii) Internal water mains and any connections thereto shall be installed and repaired only with design stage approval, and may be inspected by the Department.
- iii) Internal water mains shall be sized in accordance with the Department's sizing table (Table #3) or as approved by the Department of Buildings. Where fire hydrants are required, internal water mains shall be a minimum of eight (8) inches in diameter.
- iv) Internal water mains shall be controlled by a gate valve placed approximately two feet from the property line on the street side. A DOT-rated extension street box shall be placed over the gate valve. An additional gate valve and extension street box shall be installed for each three hundred (300) linear feet section of the water main and at each point where a lateral is connected to the water main.
- v) Taps and wet connections to internal water mains shall be installed by the Department. The service pipes shall be installed by a New York City-Licensed Master Plumber with design stage approval to perform the work.
- vi) Internal water mains must be disinfected in accordance with AWWA standards for disinfection of water mains, prior to being accepted for individual service connections or being placed into service. A water quality sample result acceptable to the Department must be obtained for internal water mains prior to

placing them into service or issuing design stage approval for connection to such internal water mains.

- vii) Written approval from the Fire Department is required before the Department may issue design stage approval of internal water mains.

§4. Paragraph 1 of subdivision (e) of Section 20-04 of Title 15 of the Rules of the City of New York is amended to read as follows:

(1) Each RPZ or Double Check Valve must be tested upon installation, device repair, [and] at least once annually[, thereafter], and as otherwise required by the Building or Health Codes. Testing shall be performed by a backflow preventer tester who is certified by the New York State Department of Health and employed by a Licensed Master Plumber. [A] An initial test report shall be submitted to the Department upon installation and testing of the RPZ or Double Check Valve. Within 12 months of the date on which the initial test report is submitted, an annual test report certifying that the backflow prevention device is operating properly [must be] shall be submitted to the Department. Every annual test report thereafter shall be submitted within 12 months of the date the last annual test report was submitted.

§5. Subdivision (g) of Section 20-04 of Title 15 of the Rules of the City of New York is amended to read as follows:

(g) *Water hammer arresters.* Where flushometers, suction tanks, other fixtures or piping are equipped with quick closing valves and are supplied by direct street pressure, an approved water hammer arrester shall be installed in the service pipe two (2) feet downstream of the meter setting or as required by [Reference Standard P107-5F of the New York City Building Code] the New York City Plumbing Code.

§6. Paragraph 2 of subdivision (h) of Section 20-04 of Title 15 of the Rules of the City of New York is amended to read as follows:

- 2) Suction tanks [shall be sized as required by the Department of Buildings] shall have a capacity of 7,500 gallons if the total connected pump capacity is between 400 and 500 gpm, and 10,000 gallons if the total connected pump capacity is 501 gpm or more.

§7. Subdivision (i) of Section 20-04 of Title 15 of the Rules of the City of New York is REPEALED.

§8. Paragraph 5 of subdivision (a) of Section 20-05 of Title 15 of the Rules of the City of New York is amended to read as follows:

(i) Fire service pipes: Fire service pipes in premises supplied with City water shall [be metered with] have an approved double detector check assembly [or an approved fire service meter]. Fire service pipes of two-and-one-half (2½) inches in diameter shall be provided with [equipment applicable to] meter, valves, and fittings required for a three (3) inch service pipe. Fire service pipes supplying hydrants shall have fire service meters.

(ii) [Combined services or domestic services with sprinkler heads two (2) inches or smaller shall use a single meter approved by the Department on the service pipe. Positive displacement meters shall not be used for such applications. Domestic services with sprinkler heads larger than two (2) inches may use one meter specifically approved by the Department for this purpose on the service pipe, or a standard displacement or other meter approved by the Department on the domestic branch and a detector check valve assembly on the fire branch. Combined services with sprinkler heads larger than two (2) inches may use one fire service meter approved by the Department on the combined service pipe, or a standard displacement or other meter

approved by the Department on the domestic branch and a detector check valve assembly on the fire branch. Service pipes of two-and-one-half (2½) inches shall be provided with equipment applicable to a three (3) inch service pipe.]

Service pipes supplying both domestic and fire protection uses: DOB-approved combined services three inches (3") or larger in diameter shall have either a single fire service meter at the head of the service or, if separation between domestic and fire service piping branches occurs within sight of the head of the service, a meter approved for domestic service on the domestic service piping branch to domestic end uses and a double detector check assembly on the fire service piping branch serving fire protection equipment. Domestic services three inches (3") or larger in diameter with fire sprinkler heads shall use a fire service meter. Domestic services smaller than three inches (3") in diameter with fire sprinkler heads shall have a meter approved by the Department.

Pumped services to house tanks where the fire protection design is met by the volume of water in the house tank shall use a turbine type or electronic type meter.

§9. Subdivision (b) of Section 20-05 of Title 15 of the Rules of the City of New York is amended by adding a new paragraph (4) to read as follows:

(4) Design approval for water meter installations shall be obtained from the Department's Bureau of Customer Services as required by Sections 603.3 and 603.5 of the New York City Plumbing Code. Approval of a backflow prevention design as required by § 20-04 shall not constitute approval of the meter installation.

§10. Paragraph 2 of subdivision (c) of Section 20-05 of Title 15 of the Rules of the City of New York is amended to read as follows:

(2) Meter testing or repair companies. A meter testing or repair company authorized by the Department may obtain permits to perform testing or repairs of water meters by demonstrating that it has detailed written testing or repair procedures that have

been approved by the Department and a detailed written training program. [All training programs shall include meter repairs, meter testing, manufacturing specifications, permit and specification requirements and the use of any testing and repair equipment. Proposals for such authorization shall be forwarded to the Department.]

(i) A permit applicant's written procedures and written training programs shall include, at a minimum:

- (a) Meter accuracy testing and reporting of results, as specified in the most recent version of AWWA Manual M6;
- (b) Written procedures that reflect a detailed understanding of the application of different meter technologies to different buildings and plumbing systems; and
- (c) Detailed written instructions for performing meter repairs, meter accuracy tests, and other inspection procedures.

(ii) A permittee shall annually submit to the Department documentary proof that any portable or bench test equipment has been tested and calibrated by a National Institutes of Standards and Technology (NIST)-certified lab or company, to confirm accurate operation of the testing equipment.

(iii) The Department reserves the right to withdraw its authorization if it finds that the meter testing or repair company is not abiding by the standards set forth in the work procedures approved by the Department.

§11. Paragraphs 3, 4, 5, and 7 of subdivision (d) of Section 20-05 of Title 15 of the Rules of the City of New York are amended, and new paragraphs 9, 10, 11, and 12 are added, to read as follows:

(3) The serial number of the meter shall be imprinted on the case [or register head], meter body, or flange in a permanent manner and all meter serial numbers shall be unique for the manufacturer.

(4) All meters used for billing purposes shall read in cubic feet. Meters sized five-eighths ( $\frac{5}{8}$ ), three-fourths ( $\frac{3}{4}$ ), or one (1) inch shall have a remote read resolution of no more than one (1) cubic foot. Meters sized one-and-a-half ( $1\frac{1}{2}$ ) or two (2) inches shall have a remote read resolution of no more than ten (10) cubic feet. Meters three (3) inches and larger shall have a remote read resolution of no more than one hundred (100) cubic feet. Meter registers shall have an error rate, including any missed reads, of no more than 0.000150% on an annualized basis.

(5) All meters used for billing purposes shall be [equipped with a touch-pad type remote meter reading receptacle that is] compatible with the Department's [meter reading probes, unless the meter has been approved by the Department for reading exclusively through an approved] automatic meter reading system. Such compatibility shall be certified by the Department.

(7) All meters shall have a main case composed of an alloy which shall have a lead content that shall not exceed [0.250%] current NSF/ANSI Standard 61 limits.

(9) Any main meter case made of plastic or other non-metallic material shall be commercially recyclable or shall be recycled by the manufacturer or its agent. Any main meter case made of plastic shall have metallic threaded connections unless specifically approved by the Department for composite or plastic threads.

(10) Any meter that requires a battery other than for temporary backup power for proper operation shall be provided with a manufacturer's warranty at least equal to the claimed life of the battery, or ten years for meters one-and-a-half ( $1\frac{1}{2}$ ) inch and larger or 15 years for meters smaller than one-and-a-half ( $1\frac{1}{2}$ ) inch, whichever is longer.

(11) The manufacturer shall provide each meter with a removable barcode tag and sticker meeting the Department's specifications.

(12) All meters installed in any pit or vault, or installed in the basement of a building lying in a designated floodplain, shall have factory, waterproof wiring connections and shall be rated by the manufacturer for submersion in water.

§12. Paragraphs 1 and 2 of subdivision (e) of Section 20-05 of Title 15 of the Rules of the City of New York are amended to read as follows:

(e) [Turbine and compound] Compound, turbine, electromagnetic, and single-jet meters.

(1) [Turbine and compound meters may be installed only upon approval of the Department upon filing of satisfactory proof that the quantity of water required will be drawn at a rate to insure proper registration.] Meter Applications

(i) Effective May 1, 2014, compound or dual-register meters shall no longer be approved for use in new or replacement installations. The replacement of measuring elements in existing compound meters shall be permitted.

(ii) Horizontal turbine meters shall be used wherever water is supplied to roof tanks by pumps or to buildings by other pumped, constant flow application, and may be used in buildings with booster pumps or pressurized supply systems as long as such systems' minimum non-zero flow rate is greater than the low-flow end of the 98.5% AWWA operating range for the specific meter model.

(iii) Electromagnetic meters may be used in place of turbine meters where the flow rating of the pump does not exceed the high end of the published normal operating flow rate range for the electromagnetic meter.

(iv) Single-jet, electromagnetic, or other meters designed for variable flow rates shall be used on services one-and-a-half (1½) inch and larger in diameter and operating on street pressure, and may be used in buildings with booster pumps or pressurized system applications.

(v) Single-jet meters shall be installed on a level horizontal plane +/- 10 degrees. Turbine, electromagnetic, and other meter types may be installed on an incline

or vertical plane if a horizontal installation is not possible and the configuration is supported by the meter manufacturer's specifications. The meter register must always face outward for reading.

(2) An approved flat plate or "Z" meter strainer shall be installed on all new or replacement [compound and] turbine meter installations, unless the turbine meter is manufactured [complete] with an internal strainer. Such a strainer is not required for electromagnetic or single-jet meters, but its use is permitted.

§13. Paragraphs 3 and 4 of subdivision (e) of Section 20-05 of Title 15 of the Rules of the City of New York are REPEALED.

§ 14. Paragraphs 2, 4, and 5 of subdivision (i) of Section 20-05 of Title 15 of the Rules of the City of New York are amended, and a new paragraph 13 is added, to read as follows:

2) No fittings capable of a branch connection shall be permitted in the section of pipe upstream of the meter or meter setter with the exception of an approved strainer. The strainer shall be located immediately before the inlet side of the meter. The service pipe between the point of entry and the meter setting shall be kept visible. No fittings, devices, or equipment shall be permitted in the section of pipe upstream or downstream of the meter that interferes with the required laminar flow through the meter.

4) Meter settings shall have an inlet valve immediately upstream of the meter and any strainer, and an outlet valve [immediately upstream/] downstream of the meter [which shall be of a type approved by the Department]. For meters two (2) inches in size or smaller, the valves shall be full-port ball valves. For meters larger than two (2) inches in size, the valves shall be rising stem, resilient seated, and epoxy-coated gate valves. If a backflow prevention device is located after the

meter setting and both the backflow prevention device and meter setting are located on the same floor of a building, then an outlet valve serving both the backflow prevention device and meter setting may be placed immediately after the device. If the backflow prevention device and meter setting are located on different floors of a building, each set of equipment shall have its own outlet valve and test tee.

(i) Except for meters two (2) inches or smaller where space constraints prevent any approved meter technology from being installed with an inlet valve, or as noted in §20-05(a)(5), a house control valve shall not be used in lieu of a meter inlet valve.

(ii) A meter outlet valve is not required for fire meters on a dedicated fire service or the fire service branch of a combined service, for a Detector Check Valve Assembly or if the property has approved backflow prevention equipment which includes an outlet valve.

(iii) A plain tip test tee shall be provided before the meter outlet valve or incorporated into the design of the meter outlet valve. For meters up to two (2) inches in diameter, the test tee shall be the same size as the meter. For meters larger than two (2) inches in diameter, the test tee shall be two (2) inches. An exception shall be provided for installations using an outlet valve that incorporates an one-and-a-half (1½) inch rather than two (2) inch test tee into the design of its two (2) inch outlet valve. Factory-fabricated setters five-eighths (5/8) inch through two (2) inches shall have test ports as described in paragraph 6 of this subdivision. Test port plugs on meter bodies shall be drilled for seal wire. Test tees are not to be used as connections for domestic service. Where a meter is placed in a pit alongside a sewer trap, the meter test tee shall be located outside of the pit in an accessible location.

5) Connections shall be made by coupling, union, flange union or approved compression fittings and bored for sealing with holes not less than three thirty-seconds ( $\frac{3}{32}$ ) of an inch in diameter. Compression fittings are permitted for three quarter ( $\frac{3}{4}$ ) inch through two (2) inch meters only. Unions, couplings or compression fittings that permit removal of the meter and/or setter without breaking the seal wire are prohibited. Grooved end mechanical pipe joining

systems are not permitted between the meter inlet valve and the outlet side of the meter. If used on the service side of the house valve, such systems shall be drilled for seal wire. In all other circumstances, pipe joining specifications shall conform to the New York City Plumbing Code. All water meter settings of two (2) inches and smaller sizes shall utilize valves and fittings constructed of bronze with a lead content that shall not exceed [0.250%, or copper alloys of commercially pure copper and bronze mill products] current NSF/ANSI Standard 61 limits. Bolts, studs, nuts, screws and other external fastening devices shall be made of a bronze alloy or stainless steel conforming to AWWA standards, and shall be designed for easy removal following lengthy service. Above-ground, indoor service pipe, including the meter setting and any backflow prevention device, shall [be Type K or Type L copper, if copper is acceptable for such size service pipe] comply with standards for water distribution pipe contained in the New York City Plumbing Code.

13) Meters settings shall be provided with holes for running seal wire to be installed by the Department. The meter installation shall include either one-eighth (1/8) inch holes drilled in a bolt on each end flange, or an one-eighth (1/8) inch hole drilled in one or both flanges.

§15. Subparagraph (d) of paragraph 4 of subdivision (k) of Section 20-05 of Title 15 of the Rules of the City of New York is amended to read as follows:

(d) Pits four (4) feet or more in depth shall be provided with an access opening of at least two feet, six inches (2'6") square or at least thirty (30) inches in diameter, but of sufficient size to remove and replace the meter. [The] If the access opening is square, the cover of such opening shall be hinged and shall be provided with a suitable handle. [Covers] Doors exceeding forty (40) pounds in weight shall be counter balanced. Approved composite lids or covers for vaults are available from the Department.

§16. Paragraphs 1 and 2 of subdivision (1) of Section 20-05 of Title 15 of the Rules of the City of New York are amended to read as follows:

(1) An individual water meter to be read by the Department shall be installed for each separately-owned dwelling unit in all new condominium and homeowners' associations structures of three (3) stories or less when each such unit is supplied with hot water and space heat by its own separate domestic hot water heater and space heating system, and not by a common water heater or space heater. If fire protection sprinklers are present they shall be supplied by a separate dedicated service pipe. Any hose bib or irrigation supply shall be connected to one of the unit's metered branches. [All remote receptacles or AMR transmitters] Such individual water meters shall be located in a common location immediately after the point of entry in each structure, with each meter clearly labeled as to the unit it supplies. MTUs shall be mounted on the exterior walls of the building. New and existing condominiums and homeowners' associations structures of six (6) stories or fewer with in-unit hot water heaters and space heating systems may apply to install individual water meters at their cost and in the same manner and governed by the same conditions as meters for new condominiums and homeowners' associations structures of three (3) stories or fewer, unless the work is physically impractical or the owners do not agree to individual water meters or required MTU placement. Such existing structures requesting individual water meters shall not be in arrears with their water or sewer accounts or payment agreements at the time of application to the Department. The Department shall set specific written requirements for such applications. For all cases, if there are building common end uses, such as but not limited to irrigation and heating boilers, then individual water meters in the name of the condominium or homeowners' association shall be installed for those uses. Properties served by internal water mains shall be metered as specified in §20-05(a)(ii).

(2) Condominiums and [homeowner's] homeowners' associations that cannot be individually metered as described in § 20-05(1)(1) shall have a meter at the point of entry of the water service for the building or buildings, except that those properties served by internal water mains shall be metered as specified in § 20-05(a)(ii).

§17. Paragraphs 1, 2, 3, and 4 of subdivision (r) of Section 20-05 of Title 15 of the Rules of the City of New York are amended to read as follows:

(r) *Remote receptacles and AMR transmitters (“MTU”).*

1) [Mechanical Construction

The assembly shall be resistant to accidental or unauthorized use and tampering without the need for seal wire. The device shall be sturdy and materials shall be corrosion resistant. The assembly's operation shall not be affected by rain, condensation or temperature variations from -40 degrees to +180 degrees Fahrenheit.]

*Temporary use of remote receptacles or pads.*

The licensed plumber performing the meter installation or replacement shall run wire from the meter register to an exterior wall. If the licensed plumber installs a meter manufacturer’s remote receptacle or pad for temporary use, installation shall be in a location consistent with the specifications in paragraph 2 for placement of an MTU until the Department replaces the remote receptacle or pad with an MTU. Any splices of wire running from the meter register to the remote receptacle or pad must be sealed with gel caps. All three of the wire connections at the meter register must be connected to wires running to the remote receptacle or pad, even if only two wires are connected at the remote receptacle or pad. The third wire shall be tucked behind the remote pad.

2) [Electrical Construction

Pin-type remote receptacles are not permitted. Remote receptacles shall be touch-pad or proximity types. Connecting cable or wires shall be twenty-two (22) gauge and approved by the Department. The materials employed in contacts and connectors shall resist corrosion.

(3)] Placement of MTU or temporary remote receptacle.

Placement of the [remote receptacle] MTU shall comply with the following guidelines:

(i) *Location.*

[Receptacles] The MTU shall be located on the front or side exterior of the building, unless such building and an immediately adjacent building have aluminum siding or other signal reflective material in which case the MTU shall be located on the front exterior only. [The remote receptacle shall be accessible to the meter reader and close to electric and gas meters. Receptacles shall not be installed behind bushes, locked gates, etc. If applicable, remotes shall be set inside storefront security gates. When meters are installed for a two (2) family home, the remotes should be as close together as possible so that both readings can be taken from the same location, preferably on the front of the building.] The MTU must be located above ground level, and must not be placed behind permanently-sited large metal objects. All wire splices shall be sealed with gel caps. For [certain high-rise] apartment or office buildings with glass, marble or other similar facades, [the remote may be located in a publicly accessible location, such as the building lobby, where it will not require the meter reader to obtain keys or contact building personnel. In the alternative, for buildings with glass, marble or similar facades or with landmarked status, the remote may be placed in the electric meter room with a sign, "Water Meters."] a smaller optional remote antenna MTU is available from the Department, or the MTU may be located inside a building if transmissions can be received by the AMR system. The location of the [remote] MTU must be indicated in the meter permit as returned to the Department.

For all underground meter installations, the remote pad shall be mounted in the meter pit lid or some support or structure immediately adjacent to the pit, to allow meter readings without opening the lid.

(ii) *Height.*

The receptacle shall be set at forty-two (42) inches above ground, but may be set between twelve (12) and sixty (60) inches if circumstances preclude a better height. Receptacles may be installed beyond these limits only when approved in writing by the Department.

[(4) AMR Transmitter] (3) AMR transmitter.

[The Department will conduct a transition from the use of remote receptacles to the use of radio-based automatic meter reading systems, with information on that transition to be published in the list of approved water meters, detector assemblies, pit meter equipment, meter attachments and meter-associated equipment as required pursuant to §20-05(d)(1). When the Department has begun installing AMR transmitters Citywide, meter installations shall be required to include the approved AMR transmitter, and the use of remote receptacles shall no longer be permitted.] AMR radio transmitters (MTUs) for domestic meters shall be mounted on the exterior surface of an exterior building wall above ground level, unless otherwise specified by the Department. AMR radio transmitters for evaporative cooling tower makeup water meters or other meters located on the upper floors of a building shall be mounted on the exterior of the building wall, at a roof parapet or other location to permit effective transmission of the radio signal. Meters placed in outdoor pits or vaults shall have MTUs mounted on the underside of approved composite plastic pit lids or covers available from the Department.

§18. Paragraphs 2 and 3 of subdivision (a) of Section 20-06 of Title 15 of the Rules of the City of New York are amended to read as follows:

(2) Refrigeration

- (i) All refrigeration systems in excess of six (6) tons of rated capacity using City water and installed before January 1, 2011 must be equipped with approved water conserving devices. Once-through, water-cooled refrigeration systems are prohibited in new construction effective January 1, 2011, in accordance with § 428.1.1 of the New York City Plumbing Code.

(ii) All refrigeration systems of six (6) tons of rated capacity or less using City water without an approved water conserving device shall be equipped with an automatic water regulating device on each individual unit.

(3) Air Conditioning

(i) All air conditioning systems in excess of two (2) tons of rated capacity using City water and installed before January 1, 2011 must be equipped with an approved water conserving device. Once-through, water-cooled air conditioning equipment is prohibited in new construction effective January 1, 2011, in accordance with § 428.1.1 of the New York City Plumbing Code.

(ii) All air conditioning systems of two (2) tons of rated capacity or less using City water without an approved water conserving device shall be equipped with an automatic water regulating device on each individual unit.

§19. Paragraphs 5, 6, and 7 of subdivision (a) of Section 20-08 of Title 15 of the Rules of the City of New York are amended to read as follows:

(5) [Restrictions on Serving of Water

No person or entity shall cause, permit or allow the serving of water from the City water system to any patron of a restaurant, club, or other eating place unless it is specifically requested by such patron.] Reserved.

(6) *Watering of lawns and gardens.*

- (i) The use of a hose, automatic sprinkler or other means to water lawns or gardens is prohibited between the hours of 11:00 a.m. and 7:00 p.m. Automatic irrigation systems shall include a sensor or control which shall prevent operation during or within 24 hours of substantial rain.
- (ii) Between the first day of November and the last day of the following March, the following activities are prohibited using City water: (a) the use of hoses and sprinklers, and (b) the watering of lawns and gardens, except for the watering of non-turf plants with a hand-held container.
- (iii) The following activities are prohibited at all times: (a) the use of hoses which flow at more than five (5) gpm at sixty (60) psi or which, regardless of flow rate, are not equipped with an automatic shutoff mechanism which will turn off the flow of water if a handle or trigger is not actively held or compressed, and (b) the practice of allowing sprinklers to flood sidewalks, gutters and roadways.

(7) *Sidewalks flushing.*

The flushing of sidewalks is prohibited between the hours of 11:00 a.m. and 7:00 p.m. In addition, the flushing of sidewalks by means of a hose or piping is prohibited between the first day of November and the last day of the following March. This provision, however, shall not be construed to prohibit the washing of such surfaces, particularly the exterior surface of a building, where such washing is required as part of repairs mandated by the Administrative Code or to protect the health and safety of the public. [Any] For one, two, or three-family homes, any hose used to supply City water for sidewalk cleaning purposes must be equipped with a nozzle which limits flow to no more than five (5) gpm at sixty (60) psi and which is equipped with an automatic shutoff mechanism which will turn off the

flow of water if a handle or trigger is not actively held or compressed. For multiple dwellings, commercial occupancies, or where required by the Administrative Code or by the Department for health and safety purposes, any hose used to supply City water for sidewalk cleaning purposes shall use a fixture that flows at no more than 2.5 gpm, irrespective of pressure.

§20. Fire meter and service pipe of Section 20-10 of Title 15 of the Rules of the City of New York are amended, and new terms electronic meter, MTU, remote read resolution, test tee, water meter accuracy testing, and water meter setting are added, to read as follows:

§20-10 **Glossary.**

**Electronic meter (electromagnetic meter)** – A meter that operates using Faraday’s Principle.

**Fire service meter** – A water meter [used to monitor consumption by sprinklers or other fire protection systems] certified by an AWWA standard for such meters and approved by the Department for use on a service, subject to fire service flows.

**MTU** – Meter Transmitter Unit. An electronics box wired to the water meter. The MTU is part of the AMR system programmed to read the meter and transmit radio frequency readings to a remote receiving unit.

**Remote read resolution** – Refers to the smallest increment of water volume provided in the meter reading transmitted to a remote location. For example, a water meter may generate a reading in cubic feet, units of tens of cubic feet, or units of hundreds of cubic feet.

**Service pipe** - A water supply pipe which connects the customer or a development to a City water main, private water main or internal water main. Service pipes connecting a single customer’s premises to a City water main or a private water main are under the jurisdiction of the Department from the City water main or private water main up to and including the meter [set] outlet valve in metered properties, or the first valve within the property in unmetered properties. For properties with an internal water main and a meter vault at the property line, the Department’s jurisdiction runs from the water main connection to the first valve inside the property line.

**Test tee** – A downward pointing plain tip faucet or hose connection located after the water meter but before the meter outlet valve that is used for connecting an outlet hose for meter accuracy testing.

**Water meter accuracy testing (“meter testing”)** – Refers to testing the accuracy of a water meter in the field, on an indoor test bench, using methods designed by the Department and in conformance with AWWA’s Manual M6: “Water Meters – Selection, Installation, Testing and Maintenance.”

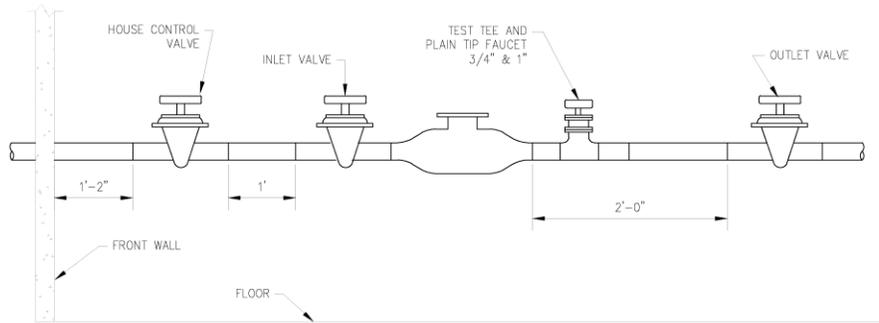
**Water meter setting.** The water meter, inlet and outlet isolation valves, test tee, and associated approved piping and fittings.

§21. Existing Figures 7, 7A, 7B, 8, 9, 9A, 10, 10A, 11, 12, 13, 14, 15, 16, 17, 18, and 19 of Chapter 20 of Title 15 of the Rules of the City of New York are REPEALED, and new Figures 7, 7A, 7B, 8, 9, 9A, 10, 10A, 11, 12, 13, 14, 15, 16, 16A, 16B, 16C, 17, 18, 19, 20 and 21 are added to read as follows:

Date Plotted: 10/4/2010 4:51 PM Author: carloss File Location: \\dep-map1\cod\_data\ees\projects\hd\bes-meters - outdoor pit contract\1 - design\1.1 - drawings\02-sketches\Fig. 7.dwg

**NOTES:**

1. METER SETTING TO BE PROPERLY SUPPORTED WITH PERMANENT SUPPORTS ANCHORED TO FLOOR OR WALL.
2. VALVES UP THROUGH 2" MAY BE FULL PORT BALL VALVES.
3. FOR 1.5" AND 2" DISPLACEMENT METERS THE TEST ASSEMBLY SHALL BE AS SHOWN IN FIGURE 9.
4. SEE RCNY CHAPTER 20-05 FOR SPECS.



**TYPICAL METER SETTING  
(NEW INSTALLATION WITHOUT BACKFLOW PREVENTER)  
FOR DISPLACEMENT METERS  
FIGURE 7 (N.T.S.)**



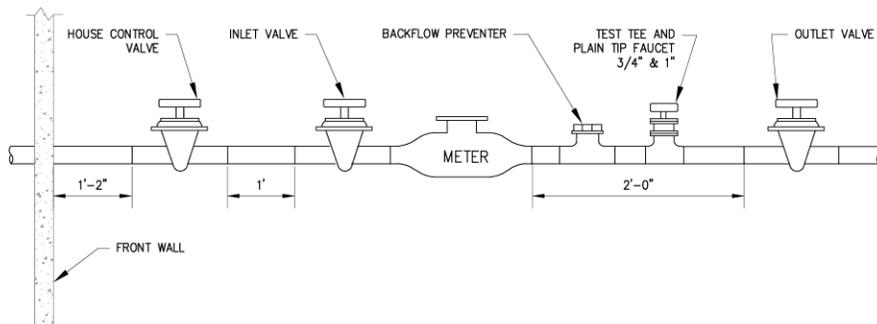
**NEW YORK CITY ENVIRONMENTAL PROTECTION  
BUREAU OF CUSTOMER SERVICE**

FIGURE 7

Date Plotted: 5/16/2011 10:22 AM Author: williams\ williams\ cad\_data\ bee\ projects\ hca\ bcs-meters - outdoor pit contract\ - design\ 1.1 - drawings\ 02-sketches\ fig 7a.dwg

**NOTES:**

1. METER SETTING TO BE PROPERLY SUPPORTED WITH PERMANENT SUPPORTS ANCHORED TO FLOOR OR WALL.
2. VALVES UP THROUGH 2" MAY BE FULL PORT BALL VALVES.
3. FOR 1.5" AND 2" DISPLACEMENT METERS THE TEST ASSEMBLY SHALL BE AS SHOWN IN FIGURE 9A.
4. WHERE A BACKFLOW PREVENTER IS REQUIRED, THE BACKFLOW PREVENTER SHALL BE INSTALLED BETWEEN THE METER AND THE TEST TEE.
5. SEE RCNY CHAPTER 20-05 FOR SPECS.



**TYPICAL METER SETTING  
NEW INSTALLATION WITH BACKFLOW PREVENTER**

N.T.S.  
FOR DISPLACEMENT METERS  
FIGURE 7A



**NEW YORK CITY ENVIRONMENTAL PROTECTION  
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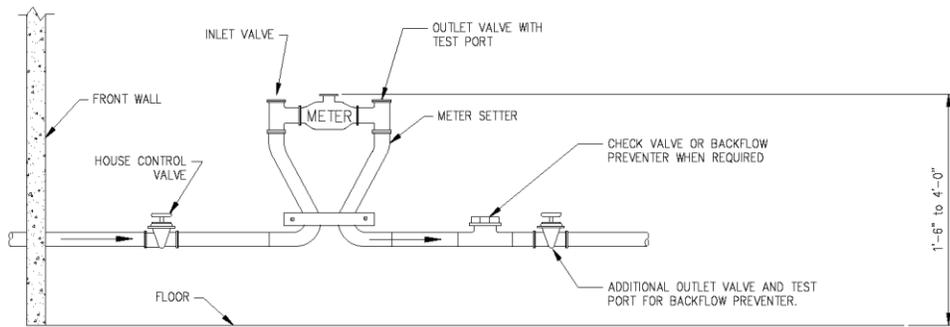
FIGURE 7A



Date Plotted: 5/16/2011 10:26 AM Author: williamsf File Location: \\dep-map1\cod\_data\ees\projects\hd\bcse-meters - outdoor pit contract\1 - design\1.1 - drawings\02-sketches\fig 8.dwg

**NOTES:**

SETTER IS INSTALLED:  
WHEN ELECTRICAL CONTINUITY IN THE SERVICE PIPE IS REQUIRED.  
FOR VERTICAL SERVICE LINES IN ORDER TO PROVIDE  
A HORIZONTAL POSITION FOR THE METER.  
WHEN PROPER SPACING AND ALIGNMENT FOR THE METER IN THE  
RAISED POSITION IS REQUIRED.



**TYPICAL METER SETTING FOR DISPLACEMENT METERS  
IN SETTER NEW AND EXISTING INSTALLATIONS**  
(N.T.S.)

**FIGURE 8**



**NEW YORK CITY ENVIRONMENTAL PROTECTION  
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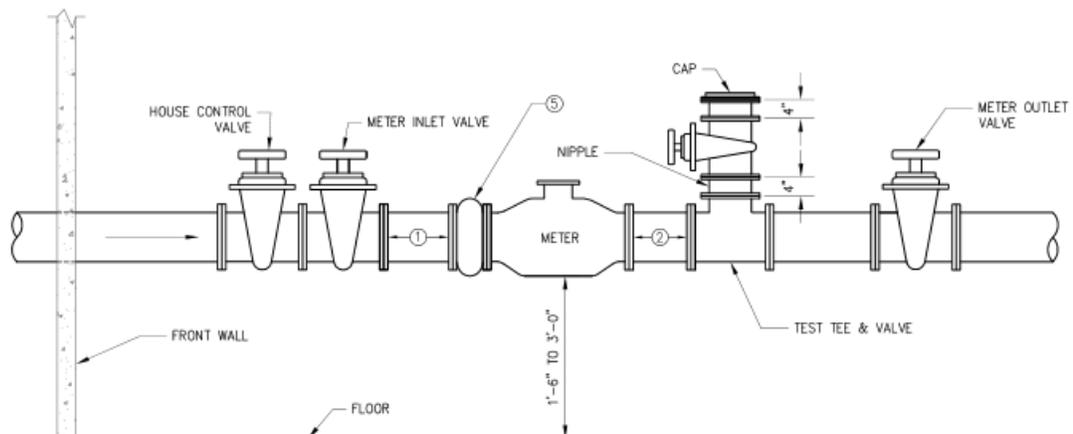
**FIGURE 8**

**NOTES:**

1. SEE RCNY CHAPTER 20-05 FOR FULL METER SETTING SPECS.
2. METER SETTING TO BE PROPERLY SUPPORTED WITH PERMANENT SUPPORTS ANCHORED TO FLOOR OR WALL.
3. METER MANUFACTURER STRAINER IS REQUIRED FOR TURBINE AND COMPOUND METERS AND RECOMMENDED BUT NOT REQUIRED FOR OTHER METER TECHNOLOGIES 2" AND LARGER.
4. A MINIMUM OF FIVE (5) PIPE DIAMETERS OF STRAIGHT PIPE ARE REQUIRED BEFORE THE METER AND A MINIMUM OF THREE (3) PIPE DIAMETERS OF STRAIGHT PIPE AFTER THE METER FOR TURBINE AND COMPOUND METERS. RECOMMENDED BUT NOT REQUIRED FOR OTHER LARGE (2"+) METER TECHNOLOGIES.
5. CONCENTRIC REDUCERS OR DOWNSIZING FLANGES SHALL BE PLACED BEFORE LOCATION "1" AND AFTER LOCATION "2" AND SHALL NOT BE INCLUDED IN REQUIRED LENGTHS OF STRAIGHT PIPE BEFORE/AFTER THE METER. SEE 20-05(G) FOR METER SIZING RULES.
6. FLANGES OR BOLTS MUST BE DRILLED  $\frac{1}{8}$ " HOLES FOR SEAL WIRE. BRONZE ALLOY 57% COPPER, OR STAINLESS STEEL. GALVANIZED BOLTS PROHIBITED.
7. METER ISOLATION VALVES SHALL BE FULL-PORT BALL VALVES THROUGH 2" AND RISING-STEM RESILIENT SEAT EPOXY-COATED GATE VALVES FOR LARGER SIZES.
8. GROOVED-END PIPE OR TUBING IS NOT PERMITTED BETWEEN METER INLET VALVE AND THE METER OUTLET, OTHERWISE PIPE SPECS ARE PER NYC PLUMBING CODE. GROOVED-END PIPE OR TUBING BEFORE THE METER INLET VALVE SHALL BE DRILLED FOR SEAL WIRE.
9. PLAIN-TIP TEST TEES SHALL BE METER SIZE OR 1.5" UP THROUGH 2" AND 2" FOR LARGER SIZES.
10. DRAWING IS SCHEMATIC. SOME METER TECHNOLOGIES MAY BE PLACED ON INCLINE OR VERTICAL DEPENDING ON MANUFACTURER SPECS. SINGLE-JET METERS MUST BE ON HORIZONTAL +/- 10 DEGREES. REGISTERS MUST BE VISIBLE FOR READING.
11. IF BACKFLOW PREVENTER ("BFP") IS REQUIRED IT SHALL BE PLACED AFTER THE METER ACCORDING TO REQUIREMENTS OF DEP-BWSO CROSS CONNECTION CONTROLS. THE METER AND BFP MAY SHARE AN OUTLET ISOLATION VALVE EXCEPT THAT IF THE METER AND BFP ARE LOCATED ON TWO DIFFERENT FLOORS SEPARATE OUTLET VALVES SHALL BE PROVIDED.
12. SINGLE-STRAND, THREE-CONDUCTOR, MINIMUM 22 GA WIRE (RED-BLACK-GREEN) SHALL BE CONNECTED TO THE THREE TERMINALS ON THE REGISTER HEAD AND SHALL BE RUN TO AN EXTERIOR WALL TO A REMOTE PAD, AMR BOX OR DEP-SUPPLIED MOUNTING PLATE.
13. SEE CURRENT "LIST OF APPROVED METERS" FOR STATUS OF COMPOUND METERS.

**GENERAL NOTE:**

SEE TEXT OF RULE: COMPOUND METER STATUS.



**TYPICAL FOR COMPOUND, TURBINE SINGLE-JET,  
AND ELECTRONIC METERS WITHOUT BACKFLOW PREVENTER**

FIGURE 9 (N.T.S)



**NEW YORK CITY ENVIRONMENTAL PROTECTION  
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FIGURE 9

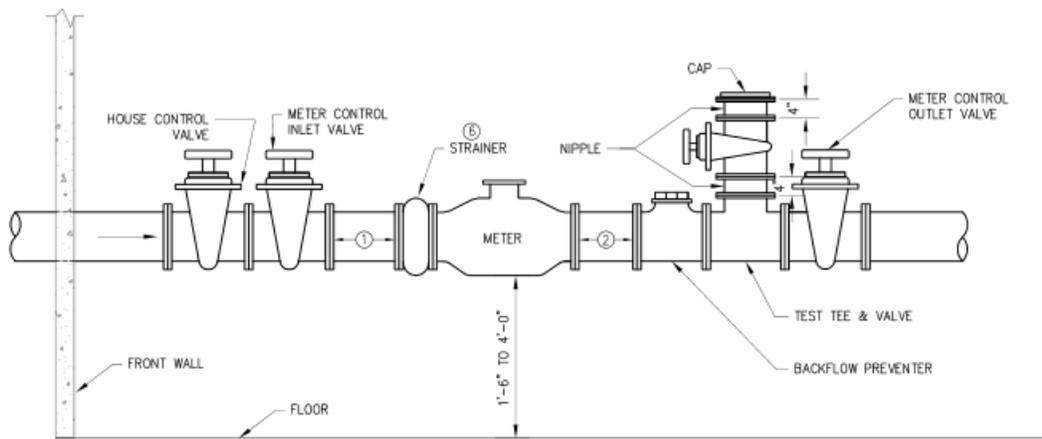


**NOTES:**

1. SEE RCONY CHAPTER 20-05 FOR FULL METER SETTING SPECS.
2. METER SETTING TO BE PROPERLY SUPPORTED WITH PERMANENT SUPPORTS ANCHORED TO FLOOR OR WALL.
3. METER MANUFACTURER STRAINER IS REQUIRED FOR TURBINE AND COMPOUND METERS AND RECOMMENDED BUT NOT REQUIRED FOR OTHER METER TECHNOLOGIES 2" AND LARGER.
4. A MINIMUM OF FIVE (5) PIPE DIAMETERS OF STRAIGHT PIPE ARE REQUIRED BEFORE THE METER AND A MINIMUM OF THREE (3) PIPE DIAMETERS OF STRAIGHT PIPE AFTER THE METER FOR TURBINE AND COMPOUND METERS. RECOMMENDED BUT NOT REQUIRED FOR OTHER LARGE (2"+) METER TECHNOLOGIES.
5. CONCENTRIC REDUCERS OR DOWNSIZING FLANGES SHALL BE PLACED BEFORE LOCATION "1" AND AFTER LOCATION "2" AND SHALL NOT BE INCLUDED IN REQUIRED LENGTHS OF STRAIGHT PIPE BEFORE/AFTER THE METER. SEE 20-05(C) FOR METER SIZING RULES.
6. FLANGES OR BOLTS MUST BE DRILLED  $\frac{3}{8}$ " HOLES FOR SEAL WIRE. BRONZE ALLOY 57% COPPER, OR STAINLESS STEEL GALVANIZED BOLTS PROHIBITED.
7. METER ISOLATION VALVES SHALL BE FULL-PORT BALL VALVES THROUGH 2" AND RISING-STEM RESILIENT SEAT EPOXY-COATED GATE VALVES FOR LARGER SIZES.
8. GROOVED-END PIPE OR TUBING IS NOT PERMITTED BETWEEN METER INLET VALVE AND THE METER OUTLET, OTHERWISE PIPE SPECS ARE PER NYC PLUMBING CODE. GROOVED-END PIPE OR TUBING BEFORE THE METER INLET VALVE SHALL BE DRILLED FOR SEAL WIRE.
9. PLAIN-TIP TEST TEES SHALL BE METER SIZE OR 1.5" UP THROUGH 2" AND 2" FOR LARGER SIZES.
10. DRAWING IS SCHEMATIC. SOME METER TECHNOLOGIES MAY BE PLACED ON INCLINE OR VERTICAL DEPENDING ON MANUFACTURER SPECS. SINGLE-JET METERS MUST BE ON HORIZONTAL +/- 10 DEGREES. REGISTERS MUST BE VISIBLE FOR READING.
11. IF BACKFLOW PREVENTER ("BFP") IS REQUIRED IT SHALL BE PLACED AFTER THE METER ACCORDING TO REQUIREMENTS OF DEP-BWSO CROSS CONNECTION CONTROLS. THE METER AND BFP MAY SHARE AN OUTLET ISOLATION VALVE EXCEPT THAT IF THE METER AND BFP ARE LOCATED ON TWO DIFFERENT FLOORS SEPARATE OUTLET VALVES SHALL BE PROVIDED.
12. SINGLE-STRAND, THREE-CONDUCTOR, MINIMUM 22 GA WIRE (RED-BLACK-GREEN) SHALL BE CONNECTED TO THE THREE TERMINALS ON THE REGISTER HEAD AND SHALL BE RUN TO AN EXTERIOR WALL TO A REMOTE PAD, AMR BOX OR DEP-SUPPLIED MOUNTING PLATE.
13. SEE CURRENT "LIST OF APPROVED METERS" FOR STATUS OF COMPOUND METERS.

**GENERAL NOTE:**

SEE TEXT OF RULE: COMPOUND METER STATUS.



**TYPICAL METER SETTING**  
(N.T.S.)  
TYPICAL FOR COMPOUND, TURBINE, SINGLE  
JET AND ELECTROMAGNETIC METERS WITH  
BACKFLOW PREVENTER  
FIGURE 9A (N.T.S.)

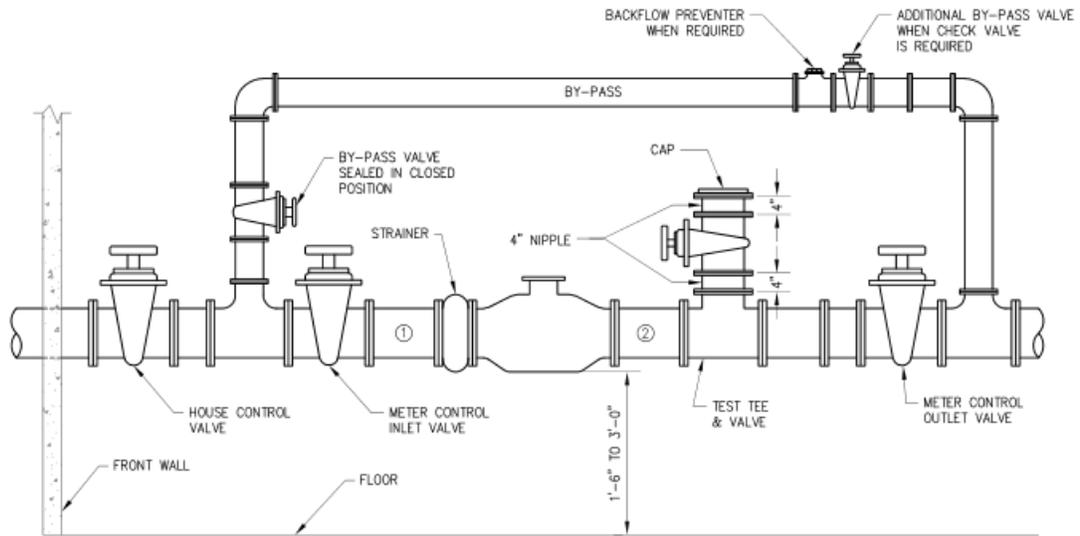


**NEW YORK CITY ENVIRONMENTAL PROTECTION  
BUREAU OF CUSTOMER SERVICE**

FIGURE 9A

**NOTES:**

1. SEE RONY CHAPTER 20-05 FOR FULL METER SETTING SPECS.
2. METER SETTING TO BE PROPERLY SUPPORTED WITH PERMANENT SUPPORTS ANCHORED TO FLOOR OR WALL.
3. METER MANUFACTURER STRAINER IS REQUIRED FOR TURBINE AND COMPOUND METERS AND RECOMMENDED BUT NOT REQUIRED FOR OTHER METER TECHNOLOGIES 2" AND LARGER.
4. A MINIMUM OF FIVE (5) PIPE DIAMETERS OF STRAIGHT PIPE ARE REQUIRED BEFORE THE METER AND A MINIMUM OF THREE (3) PIPE DIAMETERS OF STRAIGHT PIPE AFTER THE METER FOR TURBINE AND COMPOUND METERS. RECOMMENDED BUT NOT REQUIRED FOR OTHER LARGE (2"+) METER TECHNOLOGIES.
5. CONCENTRIC REDUCERS OR DOWNSIZING FLANGES SHALL BE PLACED BEFORE LOCATION "1" AND AFTER LOCATION "2" AND SHALL NOT BE INCLUDED IN REQUIRED LENGTHS OF STRAIGHT PIPE BEFORE/AFTER THE METER. SEE 20-05(G) FOR METER SIZING RULES.
6. FLANGES OR BOLTS MUST BE DRILLED  $\frac{1}{8}$ " HOLES FOR SEAL WIRE. BRONZE ALLOY 57% COPPER, OR STAINLESS STEEL. GALVANIZED BOLTS PROHIBITED.
7. METER ISOLATION VALVES SHALL BE FULL-PORT BALL VALVES THROUGH 2" AND RISING-STEM RESILIENT SEAT EPOXY-COATED GATE VALVES FOR LARGER SIZES.
8. GROOVED-END PIPE OR TUBING IS NOT PERMITTED BETWEEN METER INLET VALVE AND THE METER OUTLET, OTHERWISE PIPE SPECS ARE PER NYC PLUMBING CODE. GROOVED-END PIPE OR TUBING BEFORE THE METER INLET VALVE SHALL BE DRILLED FOR SEAL WIRE.
9. PLAIN-TIP TEST TEES SHALL BE METER SIZE OR 1.5" UP THROUGH 2" AND 2" FOR LARGER SIZES.
10. DRAWING IS SCHEMATIC. SOME METER TECHNOLOGIES MAY BE PLACED ON INCLINE OR VERTICAL. DEPENDING ON MANUFACTURER SPECS. SINGLE-JET METERS MUST BE ON HORIZONTAL +/- 10 DEGREES. REGISTERS MUST BE VISIBLE FOR READING.
11. IF BACKFLOW PREVENTER ("BFP") IS REQUIRED IT SHALL BE PLACED AFTER THE METER ACCORDING TO REQUIREMENTS OF DEP-BWSO CROSS CONNECTION CONTROLS. THE METER AND BFP MAY SHARE AN OUTLET ISOLATION VALVE EXCEPT THAT IF THE METER AND BFP ARE LOCATED ON TWO DIFFERENT FLOORS SEPARATE OUTLET VALVES SHALL BE PROVIDED.
12. SINGLE-STRAND, THREE-CONDUCTOR, MINIMUM 22 GA WIRE (RED-BLACK-GREEN) SHALL BE CONNECTED TO THE THREE TERMINALS ON THE REGISTER HEAD AND SHALL BE RUN TO AN EXTERIOR WALL TO A REMOTE PAD, AMR BOX OR DEP-SUPPLIED MOUNTING PLATE.
13. SEE CURRENT "LIST OF APPROVED METERS" FOR STATUS OF COMPOUND METERS.



**TYPICAL METER SETTING WITH BY-PASS**  
(N.T.S.)  
 TYPICAL FOR COMPOUND, TURBINE, SINGLE-JET OR ELECTRONIC METERS  
 WITHOUT BACKFLOW PREVENTER  
**FIGURE 10**



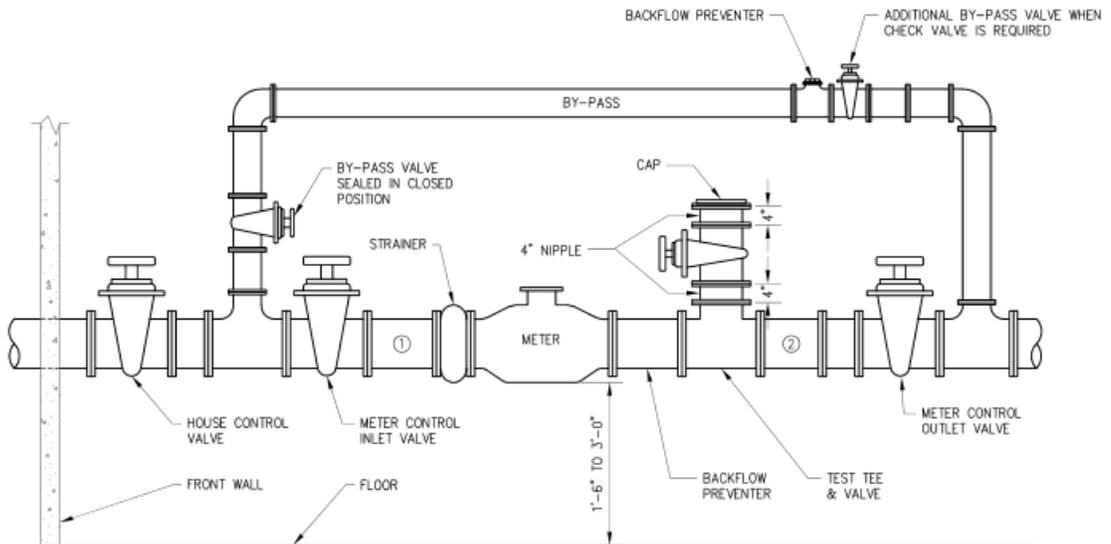
**NEW YORK CITY ENVIRONMENTAL PROTECTION  
 BUREAU OF CUSTOMER SERVICE**

FIGURE 10



**NOTES:**

1. SEE RCNY CHAPTER 20-05 FOR FULL METER SETTING SPECS.
2. METER SETTING TO BE PROPERLY SUPPORTED WITH PERMANENT SUPPORTS ANCHORED TO FLOOR OR WALL.
3. METER MANUFACTURER STRAINER IS REQUIRED FOR TURBINE AND COMPOUND METERS AND RECOMMENDED BUT NOT REQUIRED FOR OTHER METER TECHNOLOGIES 2" AND LARGER.
4. A MINIMUM OF FIVE (5) PIPE DIAMETERS OF STRAIGHT PIPE ARE REQUIRED BEFORE THE METER AND A MINIMUM OF THREE (3) PIPE DIAMETERS OF STRAIGHT PIPE AFTER THE METER FOR TURBINE AND COMPOUND METERS. RECOMMENDED BUT NOT REQUIRED FOR OTHER LARGE (2"+) METER TECHNOLOGIES.
5. CONCENTRIC REDUCERS OR DOWNSIZING FLANGES SHALL BE PLACED BEFORE LOCATION "1" AND AFTER LOCATION "2" AND SHALL NOT BE INCLUDED IN REQUIRED LENGTHS OF STRAIGHT PIPE BEFORE/AFTER THE METER. SEE 20-05(G) FOR METER SIZING RULES.
6. FLANGES OR BOLTS MUST BE DRILLED  $\frac{1}{8}$ " HOLES FOR SEAL WIRE. BRONZE ALLOY 57% COPPER, OR STAINLESS STEEL GALVANIZED BOLTS PROHIBITED.
7. METER ISOLATION VALVES SHALL BE FULL-PORT BALL VALVES THROUGH 2" AND RISING-STEM RESILIENT SEAT EPOXY-COATED GATE VALVES FOR LARGER SIZES.
8. GROOVED-END PIPE OR TUBING IS NOT PERMITTED BETWEEN METER INLET VALVE AND THE METER OUTLET, OTHERWISE PIPE SPECS ARE PER NYC PLUMBING CODE. GROOVED-END PIPE OR TUBING BEFORE THE METER INLET VALVE SHALL BE DRILLED FOR SEAL WIRE.
9. PLAIN-TIP TEST TEES SHALL BE METER SIZE OR 1.5" UP THROUGH 2" AND 2" FOR LARGER SIZES.
10. DRAWING IS SCHEMATIC. SOME METER TECHNOLOGIES MAY BE PLACED ON INCLINE OR VERTICAL DEPENDING ON MANUFACTURER SPECS. SINGLE-JET METERS MUST BE ON HORIZONTAL +/- 10 DEGREES. REGISTERS MUST BE VISIBLE FOR READING.
11. IF BACKFLOW PREVENTER ("BFP") IS REQUIRED IT SHALL BE PLACED AFTER THE METER ACCORDING TO REQUIREMENTS OF DEP-BWSO CROSS CONNECTION CONTROLS. THE METER AND BFP MAY SHARE AN OUTLET ISOLATION VALVE EXCEPT THAT IF THE METER AND BFP ARE LOCATED ON TWO DIFFERENT FLOORS SEPARATE OUTLET VALVES SHALL BE PROVIDED.
12. SINGLE-STRAND, THREE-CONDUCTOR, MINIMUM 22 GA WIRE (RED-BLACK-GREEN) SHALL BE CONNECTED TO THE THREE TERMINALS ON THE REGISTER HEAD AND SHALL BE RUN TO AN EXTERIOR WALL TO A REMOTE PAD, AMR BOX OR DEP-SUPPLIED MOUNTING PLATE.
13. SEE CURRENT "LIST OF APPROVED METERS" FOR STATUS OF COMPOUND METERS.



**TYPICAL FOR COMPOUND, TURBINE, SINGLE-JET OR ELECTRONIC METERS WITH BACKFLOW PREVENTER**

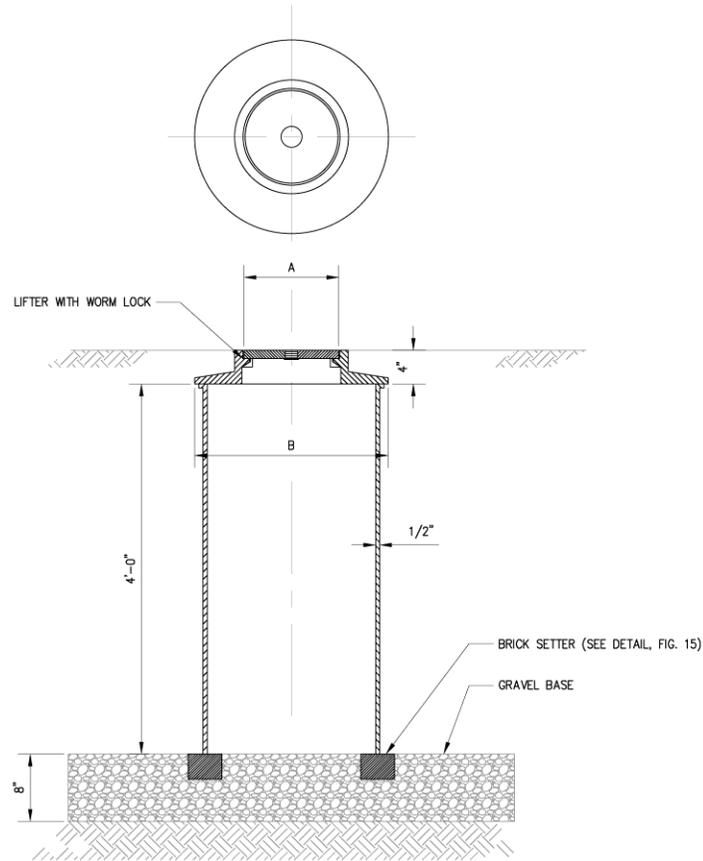
**TYPICAL METER SETTING WITH BY-PASS**  
N.T.S.



**NEW YORK CITY ENVIRONMENTAL PROTECTION BUREAU OF CUSTOMER SERVICE**

FIGURE 10A

Date Plotted: 5/16/2011 10:35 AM Author: carross File Location: \\dep-map1\cod\_data\bee\projects\nd\bcsmeters - outdoor\_pit contract\1 - design\1.1 - drawings\02-sketches\fig 11.dwg



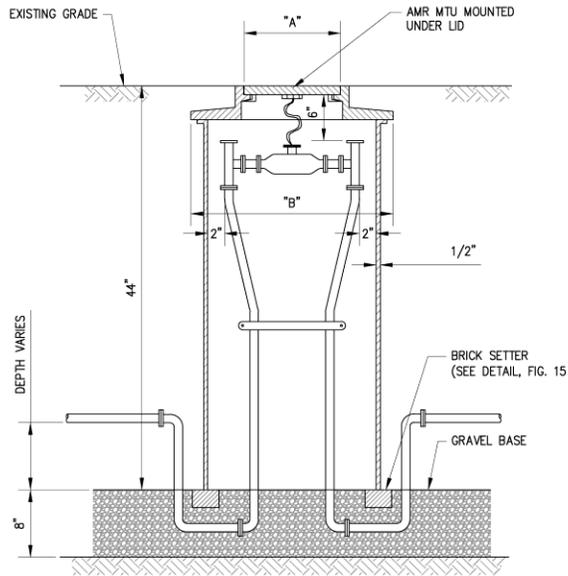
WATER METER ENCLOSURE FOR 3/4"-2" METERS  
N.T.S. - FIGURE NO 11  
(N.T.S.)



NEW YORK CITY ENVIRONMENTAL PROTECTION  
BUREAU OF CUSTOMER SERVICE

FIGURE 11

Date Plotted: 5/16/2011 10:36 AM\Author: carlos\file Location: \\dep-map\cod\_data\bee\projects\hd\bss-meters - outdoor pit contract\1 - design\02-sketches\fig 12.dwg



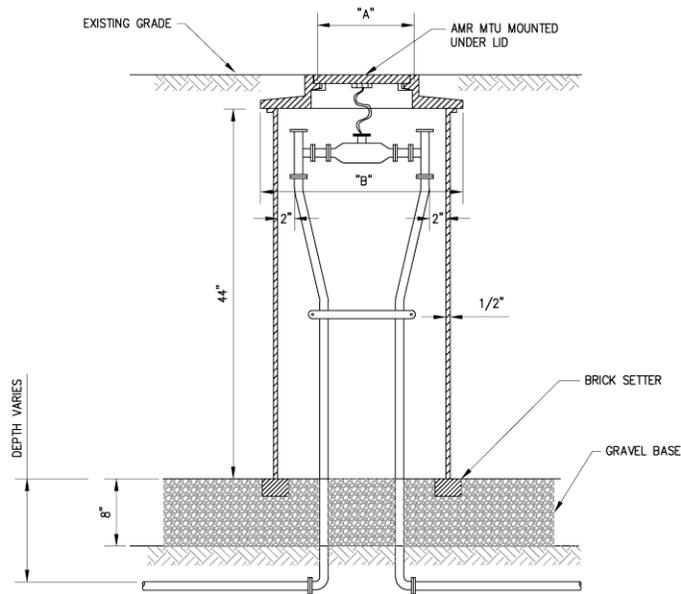
INSTALLATION OF 3/4\"-2\" WATER METER IN ENCLOSURE  
WITH SERVICE PIPE 4FT OR LESS BELOW GRADE  
(N.T.S.)



**NEW YORK CITY ENVIRONMENTAL PROTECTION  
BUREAU OF CUSTOMER SERVICE**

FIGURE 12

Date Plotted: 5/16/2011 10:37 AM Author: carross File Location: \\dep-map\cod\_data\bee\projects\nd\bcsmeters - outdoor pit contract\1 - design\1.1 - drawings\02-sketches\fig 13.dwg



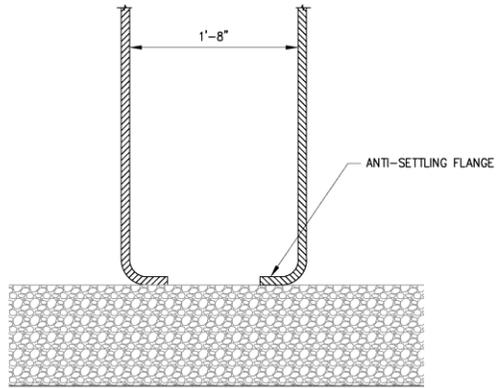
INSTALLATION OF 3/4"-2" WATER METER IN ENCLOSURE  
WITH SERVICE PIPE MORE THAN 4FT BELOW GRADE  
(N.T.S.)



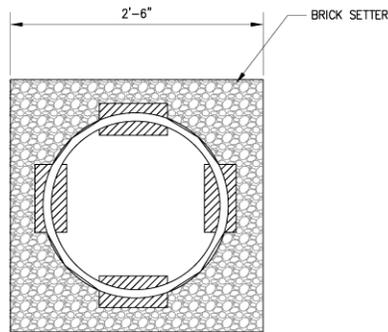
**NEW YORK CITY ENVIRONMENTAL PROTECTION  
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FIGURE 13

Date Plotted: 5/16/2011 10:39 AM Author: carross File Location: \\dep-map\cod\_data\bee\projects\nd\bcsmeters - outdoor pit contract\1 - design\1.1 - drawings\02-sketches\fig 14.dwg



INSTALLATION OF WATER METER ENCLOSURE WITH ANTI-SETTLING FLANGE



DETAIL: BRICK SETTING FOR BOTTOM OF ENCLOSURE (N.T.S.)



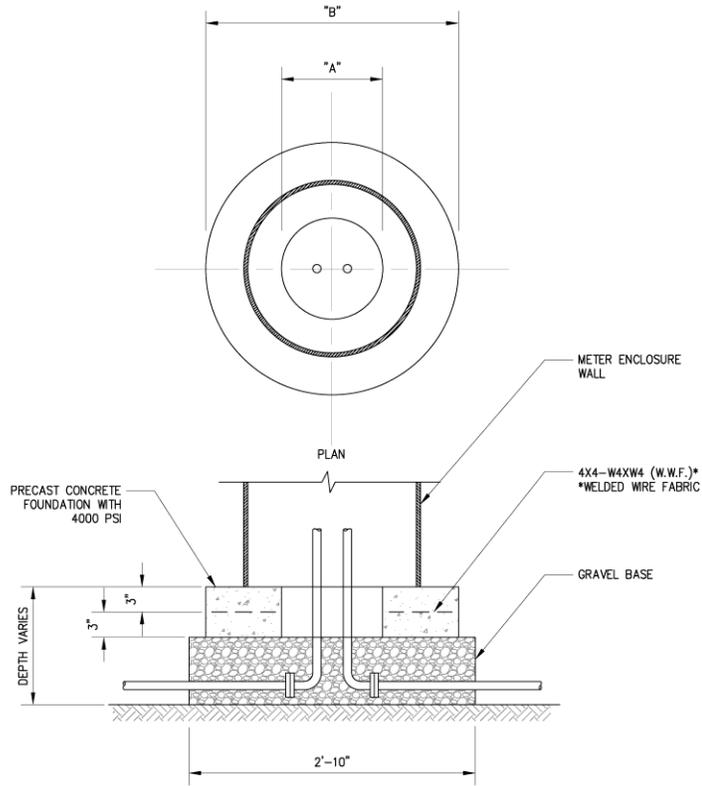
NEW YORK CITY ENVIRONMENTAL PROTECTION BUREAU OF CUSTOMER SERVICE

FIGURE 14

Date Plotted: 5/16/2011 10:40 AM Author: carross File Location: \\dep-map\cod\_data\bee\projects\nd\bsc-meters - outdoor pit contract\1 - design\1.1 - drawings\02-sketches\fig 15.dwg

**NOTE:**

THE FOUNDATION SHALL BE ONE PIECE OR 2 TO 4 PIECES PROVIDED WITH TWO 1/4" X 6" S.S. JOINT LINKS FOR EACH JOINT

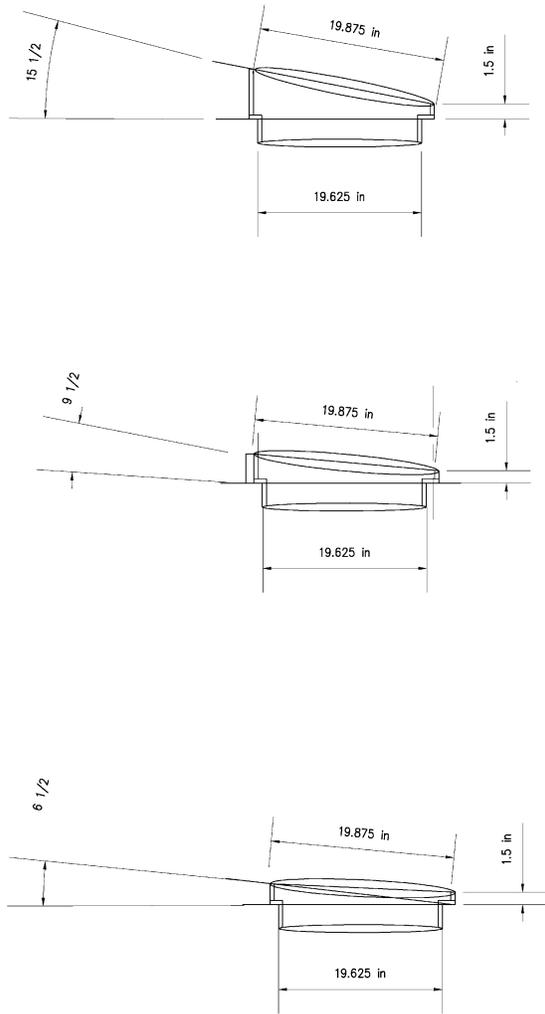


SECTION CONCRETE FOUNDATION FOR BOTTOM OF ENCLOSURE IN SIDEWALK AND DRIVEWAY AREAS  
(N.T.S.)



**NEW YORK CITY ENVIRONMENTAL PROTECTION  
BUREAU OF CUSTOMER SERVICE**

FIGURE 15

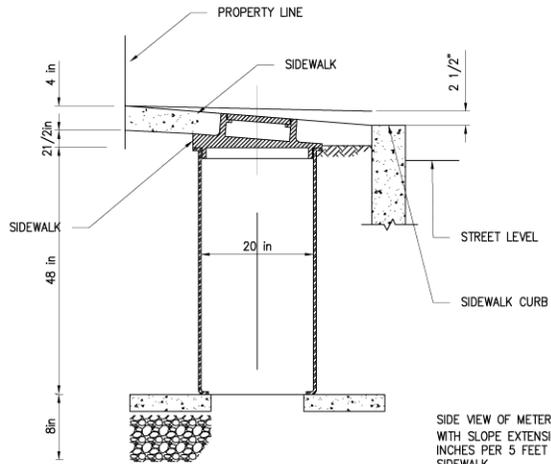


PIT UNDER INCLINED AREA  
 FIGURE NO. 16 (N.T.S.)



NEW YORK CITY ENVIRONMENTAL PROTECTION  
 BUREAU OF CUSTOMER SERVICE

FIGURE 16



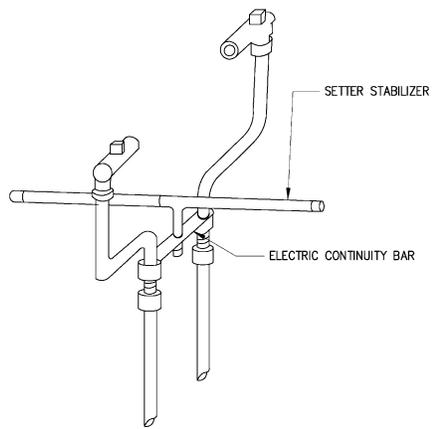
SIDE VIEW OF METER ENCLOSURE WITH SLOPE EXTENSION IN A, 2 1/2 INCHES PER 5 FEET WIDTH SLOPE, SIDEWALK.

PIT UNDER INCLINED AREA  
FIGURE NO. 16A (N.T.S.)

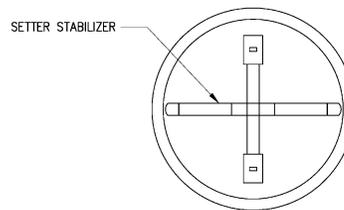


NEW YORK CITY ENVIRONMENTAL PROTECTION  
BUREAU OF CUSTOMER SERVICE

FIGURE 16A



ISOMETRIC VIEW OF SETTER STABILIZER  
WITH VERTICAL CONNECTION TO THE  
ELECTRIC CONTINUITY BAR



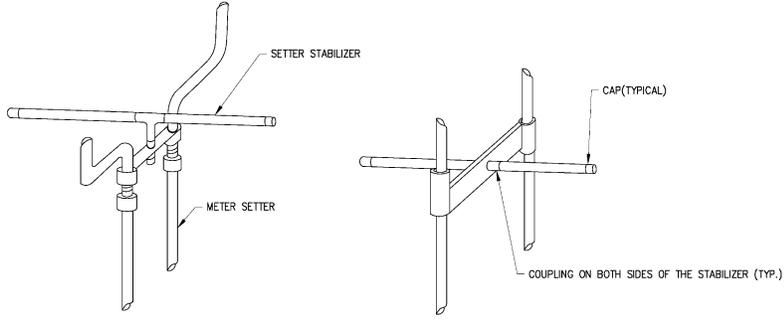
PLANE VIEW OF SETTER STABILIZER,  
SETTER AND METER ENCLOSURE

PIT SETTER STABILIZER BAR  
FIGURE NO. 16B (N.T.S.)



NEW YORK CITY ENVIRONMENTAL PROTECTION  
BUREAU OF CUSTOMER SERVICE

FIGURE 16B



SETTER STABILIZER WITH VERTICAL CONNECTION TO THE ELECTRIC CONTINUITY BAR

SETTER STABILIZER WITH HORIZONTAL CONNECTION TO THE ELECTRIC CONTINUITY BAR

PIT SETTER STABILIZER BAR  
FIGURE NO. 16C (N.T.S.)

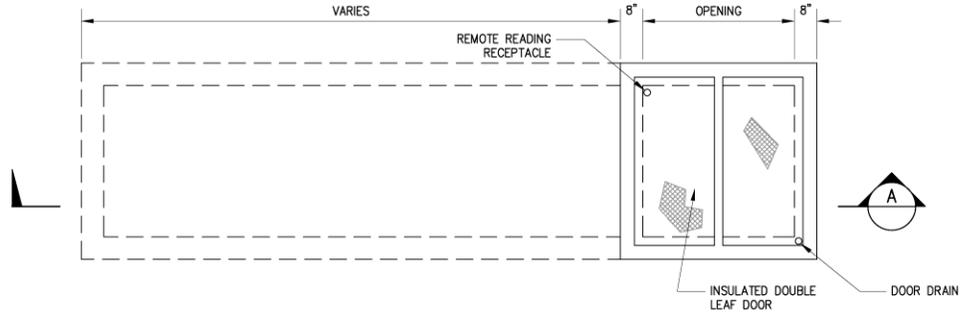


NEW YORK CITY ENVIRONMENTAL PROTECTION  
BUREAU OF CUSTOMER SERVICE

FIGURE 16C

**NOTES:**

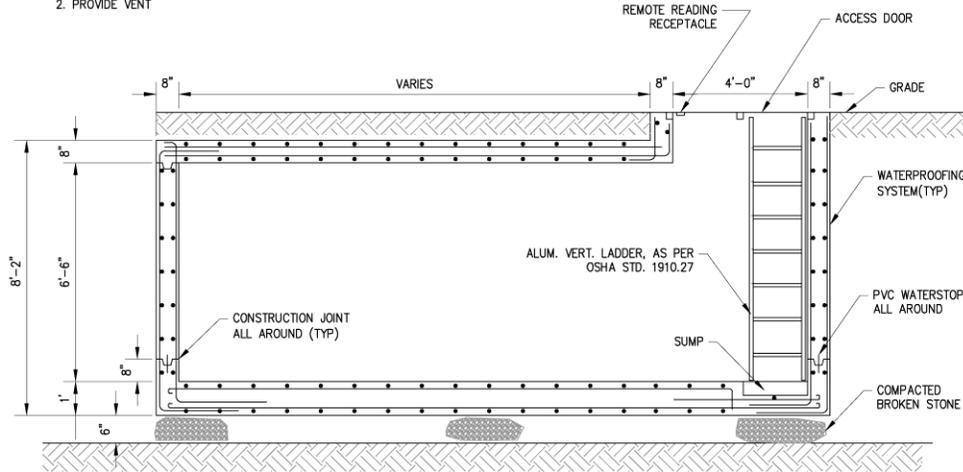
1. ALL DIMENSIONS ARE MINIMUM
2. ACCESS DOOR AS SHOWN IS FOR INSIDE PROPERTY LINE INSTALLATIONS. FOR OUTSIDE PROPERTY LINE WHERE THERE IS LIGHT OR HEAVY TRAFFIC THE ACCESS COVER SHALL MEET THE LOAD AND DESIGN REQUIREMENTS OF THE DEPARTMENT AND D.O.T.
3. CONSULT WITH DEP FOR MTU LOCATION



**TYPICAL METER VAULT ROOF PLAN**  
(N.T.S)

**NOTES:**

1. ALL DIMENSIONS ARE MINIMUM DIMENSIONS
2. PROVIDE VENT



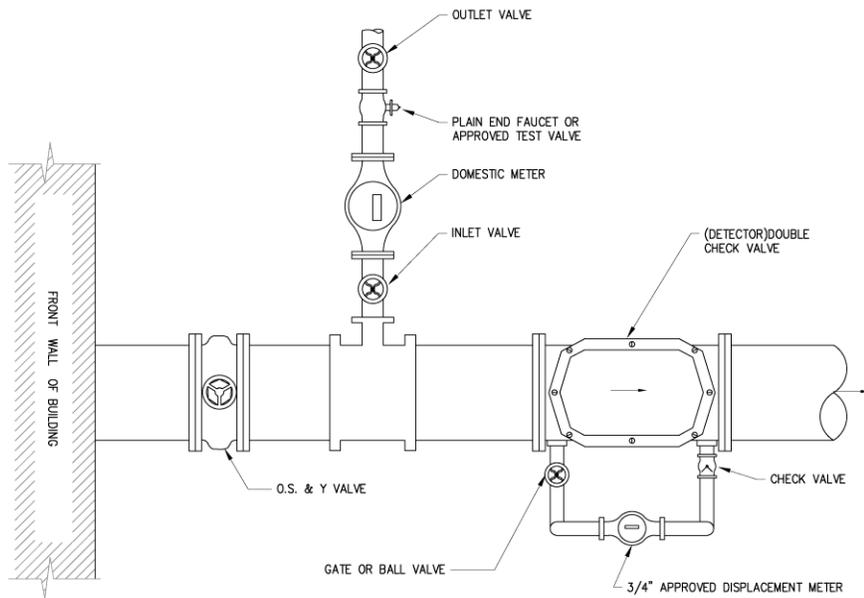
**SECTION A**  
(N.T.S.)  
**TYPICAL METER VAULT**



**NEW YORK CITY ENVIRONMENTAL PROTECTION  
BUREAU OF CUSTOMER SERVICE**

FIGURE 17

Date Plotted: 5/16/2011 11:11 AM \Author: carloss\file Location: \\dep-map1\cad\_data\bee\_projects\hd\ecs-meters - outdoor pit contract\1 - design\1.1 - drawings\02-sketches\fig\_18.dwg



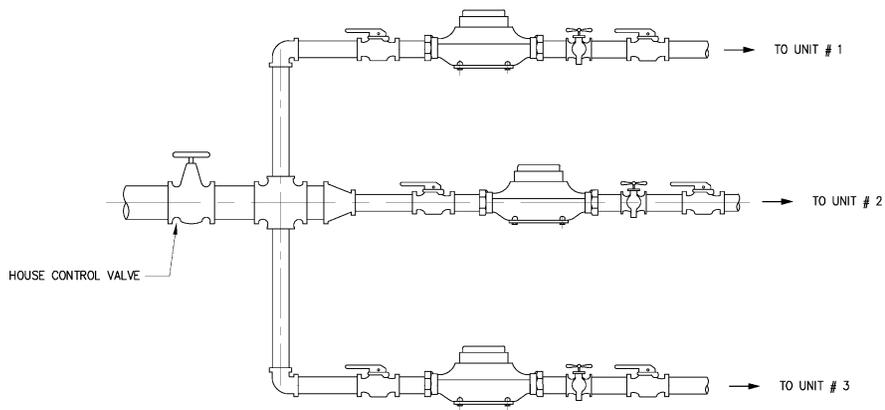
2" OR LARGER COMBINED SERVICE DCV OPTION  
FIGURE 18  
(N.T.S)



NEW YORK CITY ENVIRONMENTAL PROTECTION  
BUREAU OF CUSTOMER SERVICE

FIGURE 18

Date Plotted: 5/16/2011 11:13 AM Author: carloss File Location: \\dep-map1\cod\_data\bee\_projects\hd\bcas-meters - outdoor.plt contract\1 - design\1.1 - drawings\02-sketches\fig 19.dwg



**TYPICAL CONDOMINIUM METERING**

N.T.S.

REFER TO RCNY 20-05(1)  
FIGURE 19

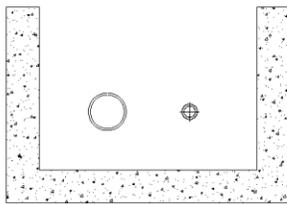
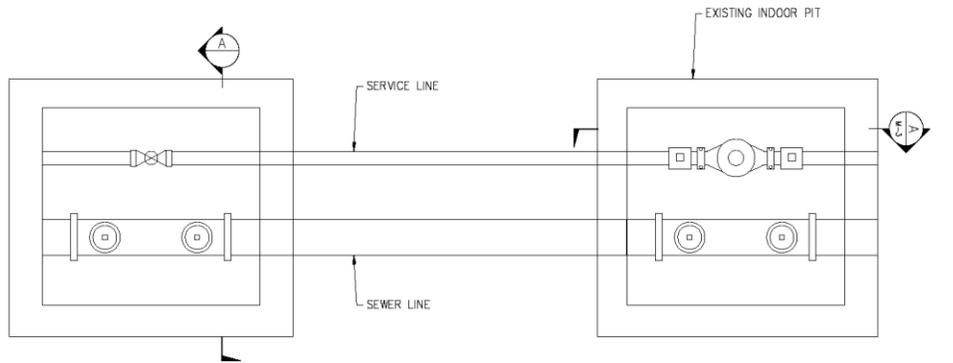


**NEW YORK CITY ENVIRONMENTAL PROTECTION  
BUREAU OF CUSTOMER SERVICE**

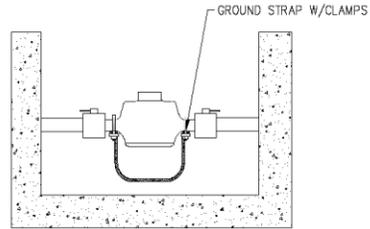
FIGURE 19

Date Plotted: 5/16/2011 11:14 AM Author: carloss File Location: \\dep-map1\cod\_data\bee\projects\hd\bee-meters - outdoor pit\contract\1 - design\1.1 - drawings\02-sketches\fig\_20.dwg

**NOTES:** PLACE TEST TEE OUT OF PIT



**X** SECTION  
S-10 SCALE 1/8" = 1'-0"



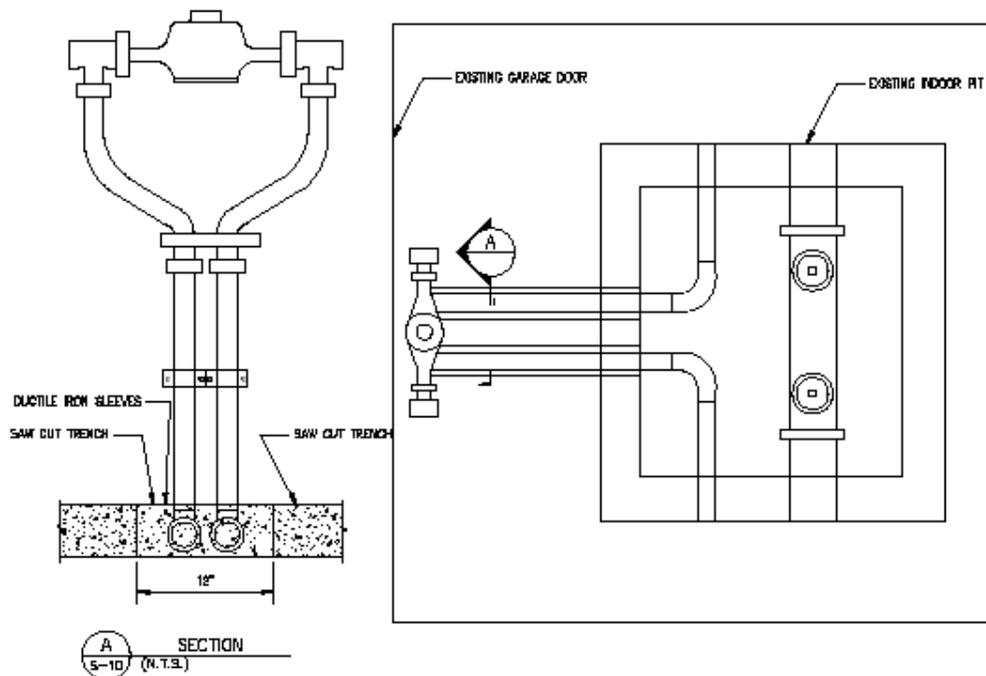
**B** SECTION  
S-10 N.T.S.

METER IN EXISTING INDOOR PIT  
FIGURE 20 (N.T.S.)



**NEW YORK CITY ENVIRONMENTAL PROTECTION  
BUREAU OF CUSTOMER SERVICE**

FIGURE 20



WALL MOUNTED METER SETTING  
 FIGURE 21 (N.T.S.)



**NEW YORK CITY ENVIRONMENTAL PROTECTION  
 BUREAU OF CUSTOMER SERVICE**

FIGURE 21

**NEW YORK CITY MAYOR'S OFFICE OF OPERATIONS  
253 BROADWAY, 10<sup>th</sup> FLOOR  
NEW YORK, NY 10007  
212-788-1400**

**CERTIFICATION / ANALYSIS  
PURSUANT TO CHARTER SECTION 1043(d)**

**RULE TITLE: Amendment of Water Use and Supply Rules**

**REFERENCE NUMBER: DEP-8**

**RULEMAKING AGENCY: DEP**

I certify that this office has analyzed the proposed rule referenced above as required by Section 1043(d) of the New York City Charter, and that the proposed rule referenced above:

- (i) Is understandable and written in plain language for the discrete regulated community or communities;
- (ii) Minimizes compliance costs for the discrete regulated community or communities consistent with achieving the stated purpose of the rule; and
- (iii) Does not provide a cure period because it does not establish a violation, modification of a violation, or modification of the penalties associated with a violation.

/s/ Hunter Gradie  
Mayor's Office of Operations

October 31, 2013  
Date

**NEW YORK CITY LAW DEPARTMENT  
DIVISION OF LEGAL COUNSEL  
100 CHURCH STREET  
NEW YORK, NY 10007  
212-356-4028**

**CERTIFICATION PURSUANT TO  
CHARTER §1043(d)**

**RULE TITLE: Amendment of Water Use and Supply Rules**

**REFERENCE NUMBER: 2013 RG 039**

**RULEMAKING AGENCY: Department of Environmental Protection**

I certify that this office has reviewed the above-referenced proposed rule as required by section 1043(d) of the New York City Charter, and that the above-referenced proposed rule:

- (i) is drafted so as to accomplish the purpose of the authorizing provisions of law;
- (ii) is not in conflict with other applicable rules;
- (iii) to the extent practicable and appropriate, is narrowly drawn to achieve its stated purpose; and
- (iv) to the extent practicable and appropriate, contains a statement of basis and purpose that provides a clear explanation of the rule and the requirements imposed by the rule.

/s/ STEVEN GOULDEN  
Acting Corporation Counsel

Date: October 29, 2013